

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C.

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*Federal Communications Commission
Office of Secretary*

In the Matter of

Advanced Television Systems
and Their Impact upon the
Existing Television Broadcast
Service

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MM Docket No. 87-268

To: The Commission

PETITION FOR RECONSIDERATION

Educational Television Association of Metropolitan Cleveland ("ETAMC"), through its attorneys and pursuant to Section 1.106 of the Commission's rules, hereby files this Petition for Reconsideration in response to the Commission's Sixth Report and Order, released April 21, 1997 in the above-captioned proceeding which introduced the Digital Table of Allotments. In support thereof the following is shown:

1. ETAMC is the licensee of Station WVIZ(TV), Channel 25, and serves a community of about 3.5 million people. In addition to serving the general public, Station WVIZ provides important services to 473,000 elementary and secondary students who attend 121 public school systems and 208 private schools in a 17 county area.

2. ETAMC has carefully reviewed the Commission's above-referenced Sixth Report and Order on DTV. ETAMC commends the Commission for the substantial work reflected in the Table and its recognition of the unique difficulties facing public television stations. But, as shown below, ETAMC is concerned about the allotment proposed for Station WVIZ. ETAMC strongly endorses the positions advanced in the Joint Petition for Reconsideration and Clarification filed by the Association of America's Public Television Stations (APTS) and the Public Broadcasting Service (PBS), but would like to place additional emphasis on an issue of particular concern not addressed

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in that Petition. Accordingly, ETAMC requests the Commission to reconsider the DTV assignment made to Station WVIZ and to take into account the need for a DTV assignment capable of serving the area proposed in its pending application to modify Station WVIZ.

3. ETAMC Will Likely Need to Supplement this Petition. As a preliminary matter, ETAMC submits that the complexity of DTV allotments, the lack of essential technical information, and the short time frame available to file petitions for reconsideration of the DTV Table make it impossible to analyze current digital assignments and explore acceptable alternatives. ETAMC has found that the consulting engineering community cannot gear up to run the massive DTV computer program during this 30-day window for seeking reconsideration. In addition, OET Bulletin No. 69, setting forth interference criteria, has not yet been released. Engineers cannot fully evaluate problems with the current allotments and propose feasible solutions without full technical information. In short, the television licensee community cannot adequately analyze the Commission's complex proposal in time to offer concrete options. However, ETAMC can identify its preliminary concerns with respect to its proposed allotment.

4. The conversion to digital broadcast service is a complex process and broadcasters should be afforded the time to analyze their assignments and investigate alternatives which will enable them to best serve their public. Accordingly, and consistent with the request of the Broadcasters' Caucus filed today, ETAMC requests that the Commission permit it to supplement this pleading with technical data within 90 days from the release of OET Bulletin No. 69. This supplemental filing period would allow ETAMC to work with its consulting engineers to further develop feasible solutions. This is clearly preferable to forcing prospective digital licensees to move forward without

current and accurate information and submit proposals which turn out to be technically infeasible. That course would waste public time and money, and, perhaps, delay the roll-out of digital broadcast service.

5. ETAMC currently operates its NTSC service on Channel 25 and has been assigned paired digital Channel 26. ETAMC filed on January 1, 1996 a minor application to increase the power of Station WVIZ to 5 megawatts (FCC File No. BPET-960111KF). The application was filed to improve reception where the attributes of UHF transmission and hilly terrain combine to cause marginal reception in several areas. The power increase was planned to improve the signal delivered to cable systems and their subscribers, and to the many school system members of Station WVIZ which rely on Station WVIZ's broadcasts to aid in their education. A portion of these schools lie in areas where improved reception is needed.

6. The application has not yet been granted by the Commission and a preliminary review of the DTV Table indicates that the parameters proposed in the pending modification application were not considered by the Commission when pairing DTV Channel 26 with NTSC Channel 25. With improved facilities, it was expected that Station WVIZ Channel 25 would serve an area of 21,682 sq. km, containing a population of 3,512,192. The Commission's calculations show that the existing NTSC current service on which the DTV allotment is based is only 15,343 sq. km and 3,019,000 population. WVIZ DTV Channel 26 at 64 kW of power would serve only 17,175 sq. km. and a population of 3,290,000. Preliminary evaluation indicates that interference adjustments in the allotment table can not account for this discrepancy. On further engineering study of the Table, it appears it may be constructed in such a way as to preclude WVIZ from expanding its DTV service area to that which was

proposed in its modification application. The Commission has stated that the DTV Table is based on the Commission's engineering database as of April 3, 1997. However, the Commission appears not to have used the specifications for Station WVIZ reflective of the modification application, which was filed in accordance with the Commission's rules and policies and in full technical compliance with all requirements. ETAMC submits that the Commission should have included the modification specifications in its data base, not only for replication purposes but also for protection of Station WVIZ. According to the Table, Station WVIZ will experience interference from DTV signals which will only be increased if the service area in the proposed modification is considered.

7. The Commission has indicated that it will permit licensees to maximize their digital facilities up to the maximum permissible ERP/antenna combination limits or up to that needed to provide the same geographic coverage as the largest station within their market, provided no additional interference is caused. While Station WVIZ was allotted a maximum power of 64 kW for digital Channel 26, other stations in their market have been allotted 897 kW and 1,000kw. Although nothing determinative can be done until the release of OET Bulletin No. 69, the preliminary study conducted for ETAMC suggests that it may be precluded from making any significant changes in power for Channel 25 or Channel 26 without causing new NTSC and DTV interference .

8. The Canadian Wild Card. Canada has not yet adopted a DTV plan of its own or approved the proposed U.S. DTV plan. While the Commission has stated that power can be adjusted later, ETAMC fears that the Canadian authorities may in the interim adopt a border plan which, in effect, locks it into power levels which may prove to be insufficient. Station WVIZ and all U.S. border stations should be given initial digital

channel power level and assignments of maximum facilities to protect them in the future.

9. Reconsideration. Station WVIZ pending minor modification application was apparently not correctly reflected in the TV Database and so the digital channel matched with Station WVIZ fails to serve the area determined necessary by ETAMC. Further, the initial DTV allotments and the uncertainty of Canada's DTV plan call into doubt the viability of Station WVIZ's digital allotment and the ease with which any power increase can be accomplished at a future time. A solution proposing a substitute channel cannot be proposed at this time due to the lack of time and technical information as discussed above. Accordingly, ETAMC requests that the Commission:

- (a) Correct the engineering database to include the technical parameters proposed by ETAMC to increase the power of Station WVIZ.
- (b) Provide a period of 90 days from the release of OET Bulletin No. 69 to supplement this petition.

Respectfully submitted,

EDUCATIONAL TELEVISION ASSOCIATION OF
METROPOLITAN CLEVELAND

By: 
Steven C. Schaffer

SCHWARTZ, WOODS & MILLER
1350 Connecticut Avenue, N.W.
Suite 300
Washington, D.C. 20036
202/833-1700

Its Attorneys

June 13, 1997



ENGINEERING STATEMENT

of

John F.X. Browne, P.E.

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WVIZ-TV

Cleveland, OH

The Educational TV Association of Metropolitan Cleveland (ETAMC) is the licensee of WVIZ-TV, Channel 25, serving the Cleveland, OH, market with public television programming. In its Sixth Report & Order (MM Docket 87-268), the Commission allotted Channel 26 to WVIZ for its DTV service. This Engineering Statement addresses several issues regarding this allotment.

WVIZ has pending before the Commission an application to increase the power on its Channel 25 NTSC facility to 5 megawatts [maximum]. This application has not yet been granted by the Commission nor did the Commission consider it in replicating that station's Grade B contour with the new DTV signal.

The Commission allotted a maximum power of 64 kW for the Channel 26 DTV facility. A study was undertaken to determine whether this facility could be "maximized", i.e., be authorized to increase power up to the maximum allotted to any other station in the market (other stations have been allotted 897 kW and 1,000 kW). The study reveals three cases of NTSC interference (not including potential adjacent-channel interference to WVIZ Channel 25 NTSC) and two cases to DTV interference. The stations potentially receiving the DTV interference are located at various azimuths effectively precluding any practical power increase if the standard is that no new interference can be created^{1/}.

^{1/} At the time this statement was prepared, Bulletin OET-69 was unavailable. Evaluation of interference was conducted using alternative methodologies.

The Commission created for each new DTV allotment a new directional antenna pattern because of the replication methodology employed. WVIZ presently operates with a trilobe directional antenna pattern having a maximum-to-minimum field ratio of 4.2 dB; the new antenna pattern created by the Commission has a maximum-to-minimum ratio of 5.9 dB.

The result of this is that WVIZ-DTV:

- may operate with an omni-directional power of only 16.4 kW;
- may operate with an antenna pattern exactly duplicating its present antenna pattern at a maximum DTV power of 43 kW;
- may operate with maximum allotted power (64 kW) only if it employs an antenna exactly duplicating the Commission's pattern. (This is not likely to be a practical antenna.)

Because of the interference constraints discussed above, it is not likely that the DTV antenna pattern can be "let-out" to approach an omni-directional pattern and the station may be constrained to operating with a maximum power of 43 kW, directional. This is of great concern because of the much higher power levels assigned to other stations in the market (up to 1,000 kW).

There is also concern regarding the transborder agreement – or lack thereof – with Canada. As Cleveland is effectively on the Canadian border, the lack of an agreement calls into doubt the viability of the allotment and the ease with which any change or "maximization" can be achieved in the future.

Conclusion

The WVIZ-DTV allotment has many limitations and may be further limited by interference concerns. As soon as OET-69 becomes available, the interference and maximization issues should be re-visited.

**Certification**

This statement was prepared by me or under my direction. All assertions contained in the statement are true of my own personal knowledge except where otherwise indicated and these latter assertions are believed to be true.

A handwritten signature in cursive script, appearing to read 'John F.X. Browne', written over a horizontal line.

John F.X. Browne, P.E.
June 12, 1997